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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/762,587	01/22/2004	Dan Mirescu	60130-2002;02MRA0149	3019
26096	7590	12/07/2005	EXAMINER	
CARLSON, GASKEY & OLDS, P.C. 400 WEST MAPLE ROAD SUITE 350 BIRMINGHAM, MI 48009			WAKS, JOSEPH	
			ART UNIT	PAPER NUMBER
			2834	

DATE MAILED: 12/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/762,587

Applicant(s)

MIRESCU, DAN

Examiner

Joseph Waks

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-8, 10-14, 16 and 17 is/are rejected.
- 7) ☒ Claim(s) 9 and 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 January 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the current carrying feature as recited in claim 1 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: the current carrying feature as recited in claim 1.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-11 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, the current carrying feature is not defined neither by specification or drawings and it is not clear if the recited limitation is related to the circuit board 26, the sensor 14 or any other not clearly disclosed feature.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 6, 8, 10, and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Adam et al. (US 5,528,093).

Adam et al. disclose invention as claimed: a drive shaft 7, an electric motor 1 that rotatably drives the drive shaft, a magnet 7.2 disposed on the drive shaft, a connector 3

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removably connected to the gear housing including a current carrying feature in a form of a plug receptacle 3.21 feeding the current to the electrical motor via the circuit board 4, a sensor 8 disposed in proximity to the magnet and fixed to a circuit board, and a reduction gear driven by the shaft housed in a geared motor housing 2.

The reduction gear is inherent to the disclosed widow lift drive.

7. Claims 12, 13 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Richeson (US 5,300,883).

Richeson discloses invention as claimed: a printed circuit board 12 defining a plane, a sensor 14 fixed to the printed circuit board and offset relative to the plane formed by the printed circuit board, wherein the sensor is fitted with connection tabs 16 that offset the sensor, and a case 10 housing the printed circuit board and the sensor.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 2-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adam et al. (US 5,528,093) in view of Santos et al. (US 4,987,415).

Adam et al. disclose the unit essentially as claimed. However, Adam et al. do not disclose the distance between the sensor and the magnet being maximum 4 mm and 2 mm.

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Santos et al. disclose a high-resolution encoder with a plurality of North and South poles for a various automotive applications with a distance of between the magnet and the sensor of 0.036 inches or approximately 1 mm to provide high-resolution output signals.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the unit as taught by Adam et al. and to provide the encoder having the distance less than 2 mm or 4 mm as taught by Santos et al. for the purpose of providing high-resolution output signals. It would have been further obvious to one having ordinary skill in the art at the time the invention was made to provide the distance of 2 mm between the magnet and the sensor, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

10. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Adam et al. (US 5,528,093) in view of Richeson (US 5,300,883).

Adam et al. disclose the unit essentially as claimed. However, Adam et al. do not disclose connection tabs fitted to the sensor to fix the sensor to the circuit board.

Richeson discloses a position sensor 14 having tabs 16 fixing the sensor to the circuit board 12 for the purpose of sensing the angular position of the shaft 6 relatively to the circuit board.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the unit as taught by Adam et al. and to provide the connection tabs fitted to the sensor to fix the sensor to the circuit board as taught by

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Richeson for the purpose of sensing the angular position of the shaft 6 relatively to the circuit board.

11. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Richeson (US 5,300,883) in view of Adam et al. (US 5,528,093).

Richeson discloses the unit essentially as claimed. However, Richeson does not disclose the electrical supply contacts for supplying current to a motor in a gear reduction unit.

Adam et al. disclose a connector including the electrical supply contacts for supplying current to a motor in a gear reduction unit for the purpose of providing a constructional unit that can be assembled in an axial mounting process.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the unit as taught by Richeson and to install it in a motor/gear unit of Adam et al. for the purpose of providing a magnetic position sensing apparatus that is not significantly affected by extraneous magnetic fields.

Allowable Subject Matter

12. Claims 9 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The feature of the connector including a guide hole with the sensor is disposed in the guide hole, in combination with the other limitations present, are neither disclosed nor taught by the prior art of record.

Response to Arguments

13. Applicant's arguments filed on June 29, 2005 have been fully considered but they are not persuasive.

Re claims 1, 6, and 8-11.

In response to applicant's arguments examiner directs applicant's attention to Figures 1 and 3 where Adam et al. disclose a gear reduction unit including a connector 3 that is removably connected to a geared motor housing when the geared motor housing is assembled to the electric motor, and the current carrying feature 4 that feeds current to the electric motor. Contrary to the applicant's argument statement the disclosed connector 3 is removably connected only when the geared motor housing is assembled to the electric motor. The current carrying feature in a form of a plug receptacle 33.21 being a part of the connector is also disclosed.

14. Applicant's arguments with respect to claim 12 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Waks whose telephone number is (571) 272-2037. The examiner can normally be reached on Monday through Thursday 8 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren E. Schuberg can be reached on (571) 272-2044. The fax phone

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number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Joseph Waks
Primary Examiner
Art Unit 2834

12/6/05